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(74) Agents: HUGHES, John, E., L. et al.; Davies Collison Cave, 1 Nicholson Street, Melbourne, Victoria 3000 (AU).

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(71) Applicants (for all designated States except US): AUTOGEN RESEARCH PTY LTD [AU/AU]; C/- 439 Bay Street, North Brighton, Victoria 3186 (AU). DEAKIN UNIVERSITY [AU/AU]; Pidgions Road, Waurn Ponds, Victoria 3221 (AU).

(72) Inventors; and

(75) Inventors/Applicants (for US only): COLLIER, Greg [AU/AU]; 22 Kestrel Place, Ocean Grove, Victoria 3226 (AU). WALDER, Ken [AU/AU]; 54 Lake Avenue, Ocean Grove, Victoria 3226 (AU). SEGAL, David [AU/AU]; 1/115 Presidents Avenue, Ocean Grove, Victoria 3226 (AU). FOLETTA, Victoria, C. [AU/AU]; 1/115 Presidents Avenue, Ocean Grove, Victoria 3226 (AU).

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(54) Title: OBESITY-RELATED GENES

(57) Abstract: The present invention relates generally to a nucleic acid molecule which is expressed in at least red gastrocnemius muscle or its equivalent under particular physiological conditions. It is proposed that the nucleic acid molecule is differentially expressed under differing conditions of healthy state, myopathy, obesity, anorexia, weight maintenance, diabetes, disorders associated with mitochondrial dysfunction, genetic disorders, cancer, heart disease, inflammation, disorders associated with the immune system, infertility, disease associated with the brain and/or metabolic energy levels. The subject nucleic acid molecule and/or its expression product is proposed to be used in therapeutic and diagnostic protocols for conditions such as healthy state, myopathy, obesity, anorexia, weight maintenance, diabetes, disorders associated with mitochondrial dysfunction, genetic disorders, cancer, heart disease, inflammation, disorders associated with the immune system, infertility, disease associated with the brain and/or metabolic energy levels or as targets for the design and/or identification of modulators of their activity and/or function.